

**ABSTRACT**

An environmentally friendly method and composition is provided for removing hydrogen sulphide from fluids at high pH. The method and composition are particularly suited for removing hydrogen sulphide from drilling fluids used in drilling boreholes in hydrocarbon bearing subterranean formations, and are suitable for use with any drilling fluid, including polymer based drilling fluids. The sulphide scavenger used in the method and composition is a ferrous gluconate, an organic iron chelating agent stable at pH as high as 11.5, the pH preferred for drilling fluids that may encounter hydrogen sulphide. Further, this additive has been found to enhance the resilience of the rheological properties of drilling fluids to hot rolling and comparable field conditions.